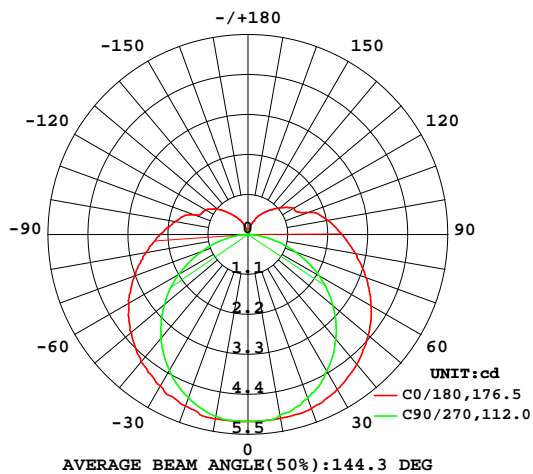


LUMINAIRE PHOTOMETRIC TEST REPORT

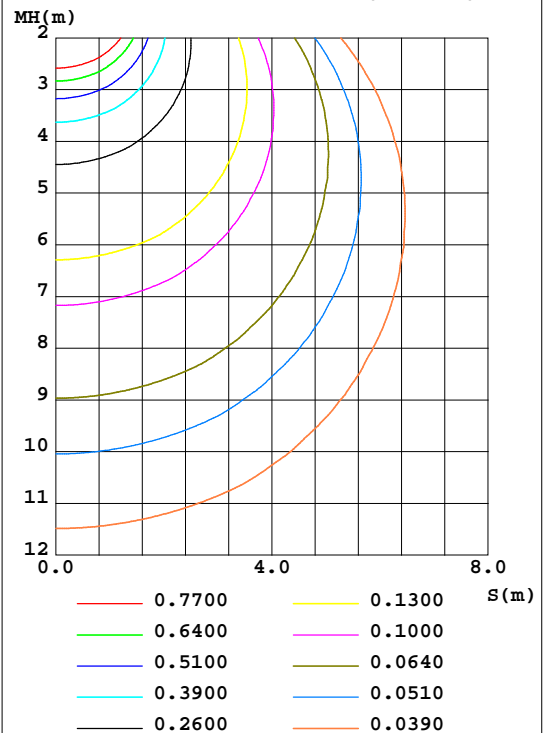
Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0RGB24CSS050CC0100-B	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA				Eff: 5.80 lm/W
MODEL	NNS1224	I _{max} (cd)	5.150	S/MH(C0/180)	1.41	
NOMINAL POWER(W)	4	LOR(%)	100.0	S/MH(C90/270)	1.25	
RATED VOLTAGE(V)	24	TOTAL FLUX(lm)	23.786	h UP,DN(C0-180)	9.7,41.2	
NOMINAL FLUX(lm)	23.7855	CIE CLASS	SEMI-D.	h UP,DN(C180-360)	8.8,40.3	
LAMPS INSIDE	1	h up(%)	18.5	CIBSE SHR NOM	1.50	
TEST VOLTAGE(V)	24	h down(%)	81.5	CIBSE SHR MAX	1.50	

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



C0 PLANE ISOLUX DIAGRAM (UNIT:lx)



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ZONAL FLUX DIAGRAM

ZONAL FLUX DIAGRAM:

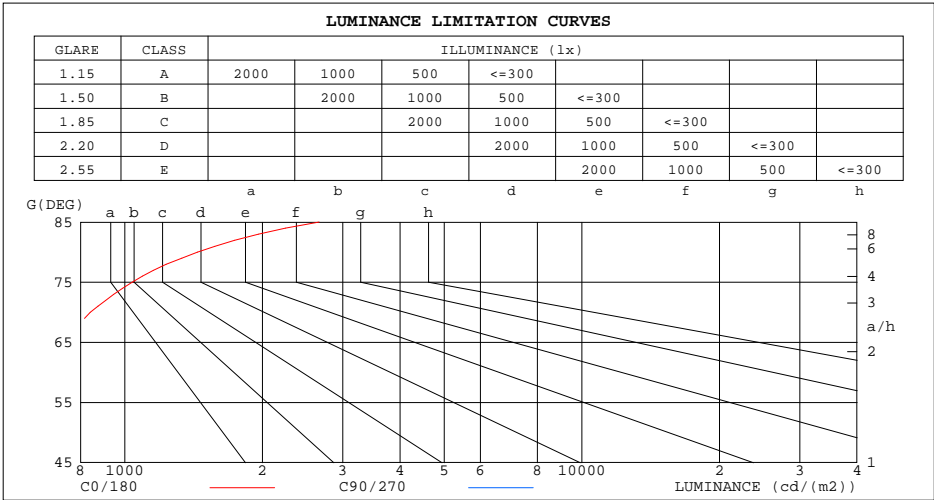
g	C0	C90	C180	C270					g	F zone	F total	%lum,lamp
10	5.135	5.047	5.148	5.080					0~ 10	0.4900	0.4900	2.06,2.06
20	5.099	4.801	5.021	4.784					10~ 20	1.423	1.913	8.04,8.04
30	4.919	4.344	4.809	4.320					20~ 30	2.208	4.121	17.3,17.3
40	4.661	3.778	4.575	3.728					30~ 40	2.758	6.878	28.9,28.9
50	4.320	3.050	4.191	3.008					40~ 50	3.028	9.906	41.6,41.6
60	3.909	2.266	3.779	2.191					50~ 60	3.002	12.91	54.3,54.3
70	3.452	1.383	3.333	1.348					60~ 70	2.686	15.59	65.6,65.6
80	3.007	0.5515	2.845	0.5544					70~ 80	2.166	17.76	74.7,74.7
90	2.595	0.0510	2.433	0.0905					80~ 90	1.616	19.38	81.5,81.5
100	2.241	0.0130	2.034	0.0193					90~100	1.283	20.66	86.9,86.9
110	1.790	0.0258	1.576	0.0193					100~110	1.047	21.71	91.3,91.3
120	1.455	0.0386	1.345	0.0193					110~120	0.7461	22.45	94.4,94.4
130	1.147	0.0515	1.094	0.0193					120~130	0.5819	23.03	96.8,96.8
140	0.8563	0.0515	0.7524	0.0193					130~140	0.3839	23.42	98.5,98.5
150	0.6056	0.0579	0.4764	0.0193					140~150	0.2219	23.64	99.4,99.4
160	0.3349	0.0837	0.2639	0.0257					150~160	0.1064	23.75	99.8,99.8
170	0.0837	0.0837	0.0644	0.0644					160~170	0.0326	23.78	100,100
180	0.0708	0.0901	0.0644	0.0901					170~180	0.0073	23.79	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

LUMINANCE LIMITATION CURVES

Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0RGB24CSS050CC0100-B	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:



LUMINANCE cd/(m2)		
G(180)	C0/180	C90/270
85	2660	202
80	1443	265
75	1039	306
70	841	337
65	726	359
60	651	378
55	600	387
50	560	395
45	529	403

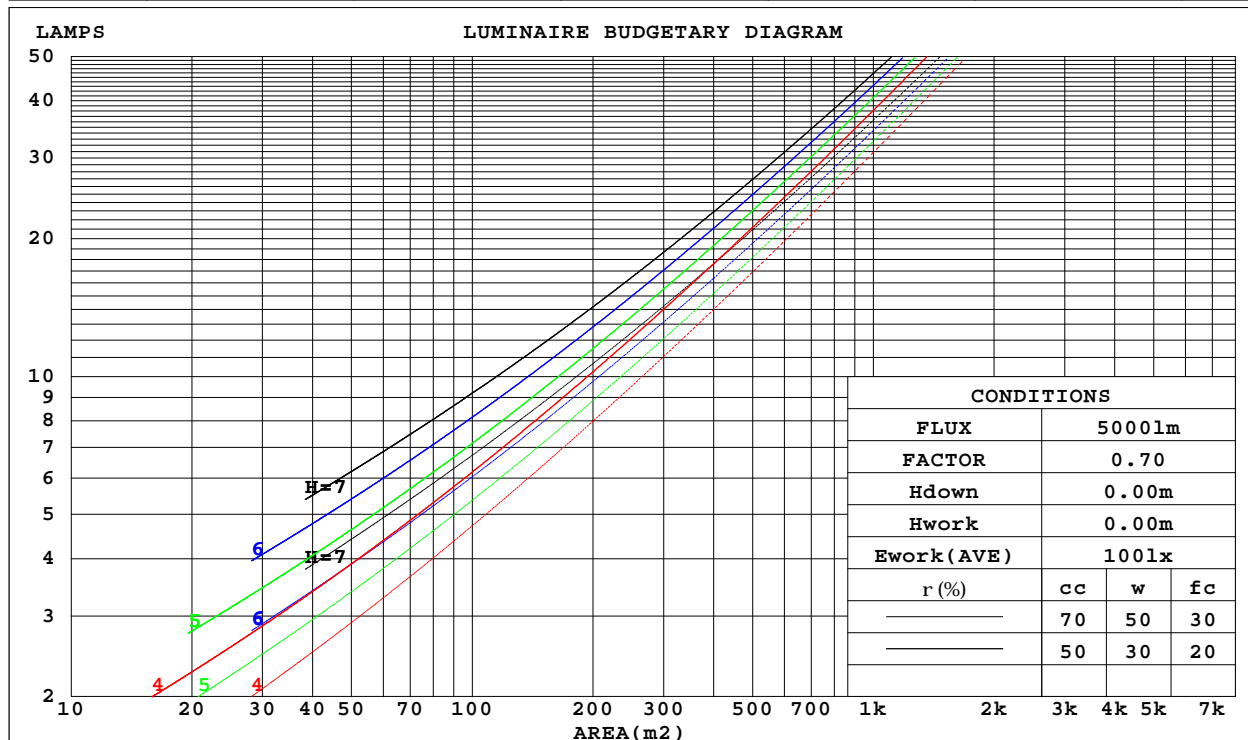
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM

Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0RGB24CSS050CC0100-B	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

r _{cc}	80%			70%			50%			30%			10%			0
r _w	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
r _{fc}	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Coefficients of Utilization(CU)															
0.0	1.15	1.15	1.15	1.10	1.10	1.10	1.01	1.01	1.01	.93	.93	.93	.85	.85	.85	.81
1.0	.96	.91	.86	.92	.87	.83	.84	.80	.77	.77	.74	.71	.70	.68	.66	.62
2.0	.82	.74	.68	.79	.72	.66	.72	.66	.61	.66	.61	.57	.60	.56	.53	.50
3.0	.71	.62	.55	.68	.60	.54	.63	.56	.50	.57	.52	.47	.52	.48	.44	.41
4.0	.63	.53	.46	.60	.51	.45	.55	.48	.42	.51	.44	.40	.46	.41	.37	.34
5.0	.56	.46	.39	.53	.45	.38	.49	.42	.36	.45	.39	.34	.41	.36	.32	.29
6.0	.50	.40	.34	.48	.39	.33	.44	.37	.31	.41	.34	.29	.37	.32	.28	.25
7.0	.45	.36	.29	.43	.35	.29	.40	.33	.27	.37	.31	.26	.34	.29	.24	.22
8.0	.41	.32	.26	.39	.31	.25	.36	.29	.24	.34	.27	.23	.31	.26	.22	.20
9.0	.37	.29	.23	.36	.28	.23	.33	.26	.22	.31	.25	.21	.29	.23	.19	.17
10.0	.34	.26	.21	.33	.25	.20	.31	.24	.19	.29	.23	.19	.27	.21	.18	.16



C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:COLORS
 Test Date:2019-07-01

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.750m [K=1.0000]
 Remarks:

WEC AND CCEC

Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0RGB24CSS050CC0100-B	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Wall Exitance Coefficients(WEC)															
0.0																
1.0	.376	.214	.068	.364	.207	.066	.339	.195	.062	.317	.183	.059	.297	.172	.055	
2.0	.328	.180	.055	.317	.174	.054	.295	.164	.051	.275	.154	.048	.256	.145	.046	
3.0	.293	.156	.047	.282	.151	.046	.263	.142	.043	.244	.134	.041	.228	.126	.039	
4.0	.264	.137	.040	.255	.133	.039	.237	.126	.038	.220	.118	.036	.205	.111	.034	
5.0	.241	.123	.036	.232	.119	.035	.216	.112	.033	.201	.106	.031	.187	.100	.030	
6.0	.221	.111	.032	.213	.108	.031	.198	.102	.030	.184	.096	.028	.171	.090	.027	
7.0	.204	.101	.029	.197	.098	.028	.183	.093	.027	.170	.087	.025	.158	.082	.024	
8.0	.189	.092	.026	.183	.090	.025	.170	.085	.024	.158	.080	.023	.147	.076	.022	
9.0	.176	.085	.024	.170	.083	.023	.159	.079	.022	.148	.074	.021	.138	.070	.020	
10.0	.165	.079	.022	.159	.077	.021	.149	.073	.021	.139	.069	.020	.129	.065	.019	

rcc	80%			70%			50%			30%			10%			0
rw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
rfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio Ceiling Cavity Exitance Coefficients(CCEC)															
0.0	.332	.332	.332	.284	.284	.284	.194	.194	.194	.111	.111	.111	.036	.036	.036	
1.0	.327	.298	.272	.280	.256	.234	.192	.176	.162	.110	.102	.094	.035	.033	.030	
2.0	.320	.275	.237	.274	.237	.205	.188	.164	.143	.108	.095	.084	.035	.031	.027	
3.0	.313	.259	.215	.268	.223	.187	.184	.155	.131	.106	.091	.077	.034	.029	.025	
4.0	.305	.246	.201	.262	.213	.174	.180	.148	.123	.104	.087	.073	.034	.028	.024	
5.0	.298	.236	.191	.256	.204	.166	.176	.143	.117	.102	.084	.070	.033	.027	.023	
6.0	.290	.228	.184	.250	.198	.160	.172	.138	.113	.100	.081	.067	.032	.027	.022	
7.0	.283	.222	.179	.244	.192	.156	.168	.135	.110	.098	.079	.066	.032	.026	.022	
8.0	.277	.216	.175	.238	.188	.152	.165	.132	.108	.096	.078	.064	.031	.025	.021	
9.0	.270	.211	.172	.233	.183	.150	.161	.129	.106	.094	.076	.063	.030	.025	.021	
10.0	.265	.207	.169	.228	.180	.148	.158	.127	.105	.092	.075	.063	.030	.025	.021	

C Range: 0 - 360DEG
 C Interval: 90.0DEG
 Test Speed: HIGH
 Temperature:25.3DEG
 Operators:COLORS
 Test Date:2019-07-01

g Range: 0 - 180DEG
 g Interval: 1.0DEG
 Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
 Humidity:65.0%
 Test Distance:10.750m [K=1.0000]
 Remarks:

UGR(Unified Glare Rating) Table

Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm										
NAME: NNS1224					TYPE:			WEIGHT:		
SPEC.:NNS1224-0RGB24CSS050CC0100-B					DIM.: 1000*12*24mm			SERIAL No.:		
MFR.: Colors					SUR.:1000*12			Shielding Angle:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	23.3	24.7	23.8	25.2	25.7	21.3	22.7	21.9	23.2	23.8
3H	26.0	27.2	26.5	27.8	28.4	22.9	24.1	23.4	24.7	25.3
4H	27.5	28.7	28.1	29.2	29.9	23.5	24.7	24.0	25.2	25.9
6H	29.2	30.3	29.8	30.9	31.5	23.9	25.0	24.5	25.6	26.2
8H	30.1	31.2	30.7	31.8	32.5	24.0	25.1	24.6	25.7	26.4
12H	31.2	32.3	31.8	32.9	33.5	24.1	25.1	24.7	25.7	26.4
4H 2H	23.8	25.0	24.4	25.6	26.2	22.4	23.6	23.0	24.1	24.8
3H	26.7	27.7	27.3	28.3	29.0	24.2	25.2	24.8	25.8	26.5
4H	28.4	29.3	29.0	29.9	30.7	25.0	25.9	25.6	26.5	27.3
6H	30.2	31.1	30.9	31.7	32.5	25.6	26.4	26.2	27.1	27.8
8H	31.3	32.1	32.0	32.8	33.5	25.8	26.6	26.5	27.3	28.0
12H	32.6	33.3	33.2	34.0	34.8	25.9	26.7	26.6	27.4	28.1
8H 4H	28.6	29.4	29.3	30.1	30.9	25.9	26.7	26.5	27.3	28.1
6H	30.8	31.4	31.5	32.1	32.9	26.8	27.5	27.5	28.2	29.0
8H	32.0	32.6	32.7	33.3	34.2	27.3	27.9	28.0	28.6	29.4
12H	33.5	34.1	34.3	34.8	35.6	27.6	28.1	28.3	28.8	29.7
12H 4H	28.6	29.4	29.3	30.0	30.8	26.2	26.9	26.8	27.6	28.4
6H	30.8	31.4	31.6	32.2	33.0	27.3	27.9	28.0	28.6	29.5
8H	32.2	32.7	32.9	33.5	34.3	27.9	28.4	28.6	29.2	30.0
Variations with the observer position at spacings:										
S = 1.0H	+ 0.1 / - 0.1					+ 0.1 / - 0.2				
1.5H	+ 0.2 / - 0.2					+ 0.2 / - 0.3				
2.0H	+ 0.2 / - 0.3					+ 0.2 / - 0.5				

CIE Pub.117, 23.79 lm Total Lamp Luminous Flux Correct (8log(F/F0) = -13.0)

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

UTILIZATION FACTORS TABLE

Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0RGB24CSS050CC0100-B	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

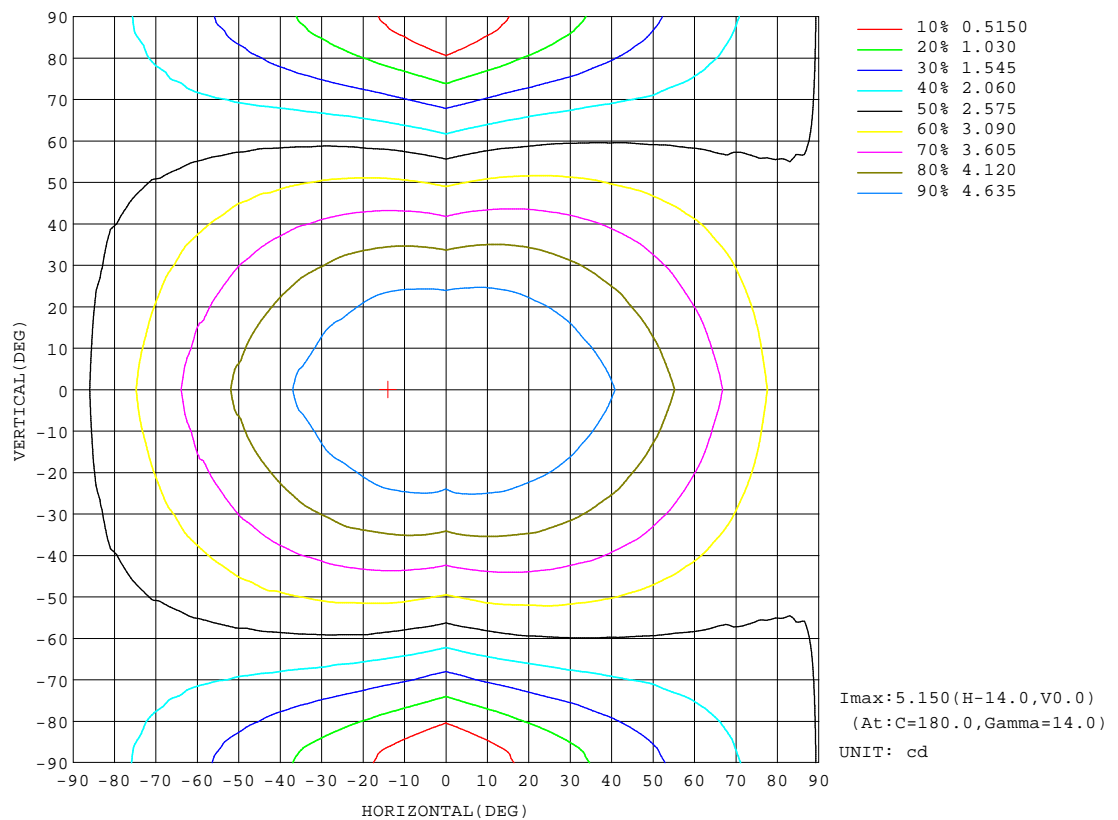
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) $k(RI) \times RCR = 5$									
$k = 0.60$	48	36	28	47	35	28	45	34	28	21
0.80	57	44	36	55	43	36	53	42	35	27
1.00	65	52	44	63	51	43	59	51	42	33
1.25	72	59	51	69	58	50	65	55	48	39
1.50	77	65	56	74	63	55	69	60	53	43
2.00	84	73	65	81	71	64	75	67	61	49
2.50	89	79	71	85	76	69	79	72	66	53
3.00	92	83	76	89	81	74	82	75	70	56
4.00	97	89	83	93	86	80	86	80	76	61
5.00	100	93	88	96	90	85	88	84	79	64
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended					SHRNOM = 1.25		

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ISOCANDELA DIAGRAM

Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0RGB24CSS050CC0100-B	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:



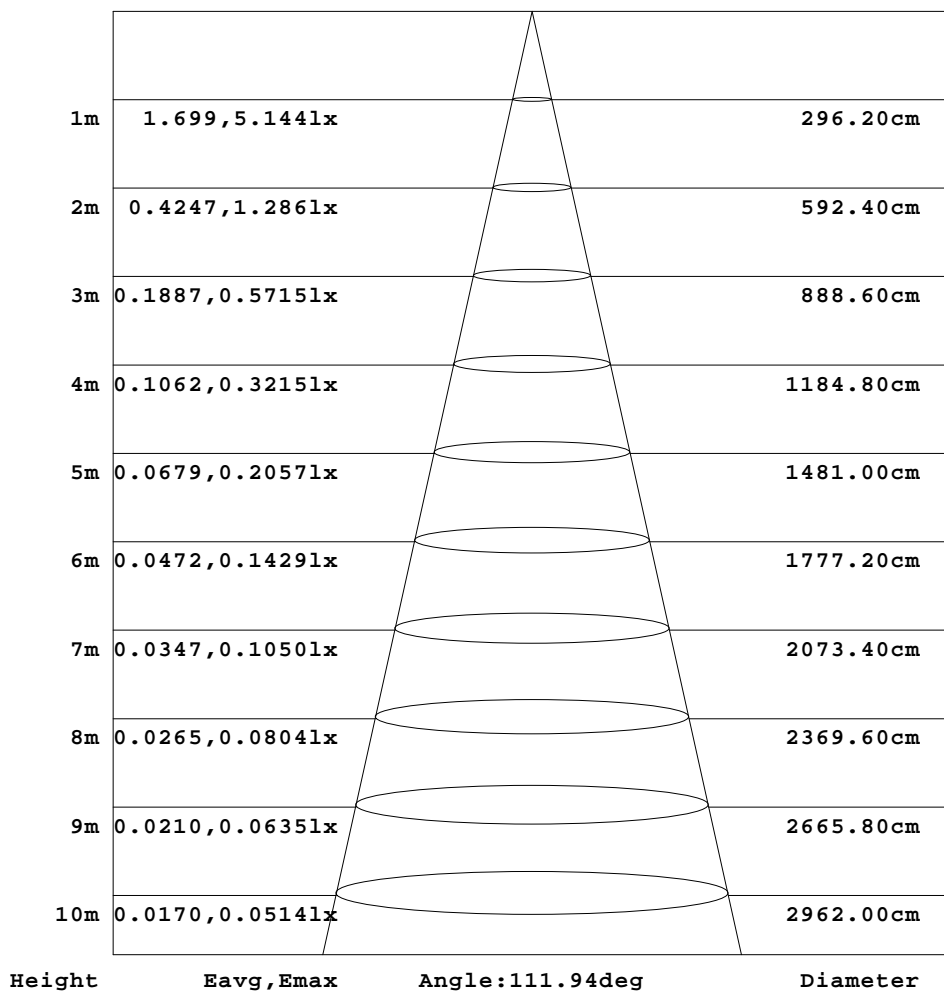
C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

deg Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

AAI Figure

Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0RGB24CSS050CC0100-B	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Flux out:11.73 lm



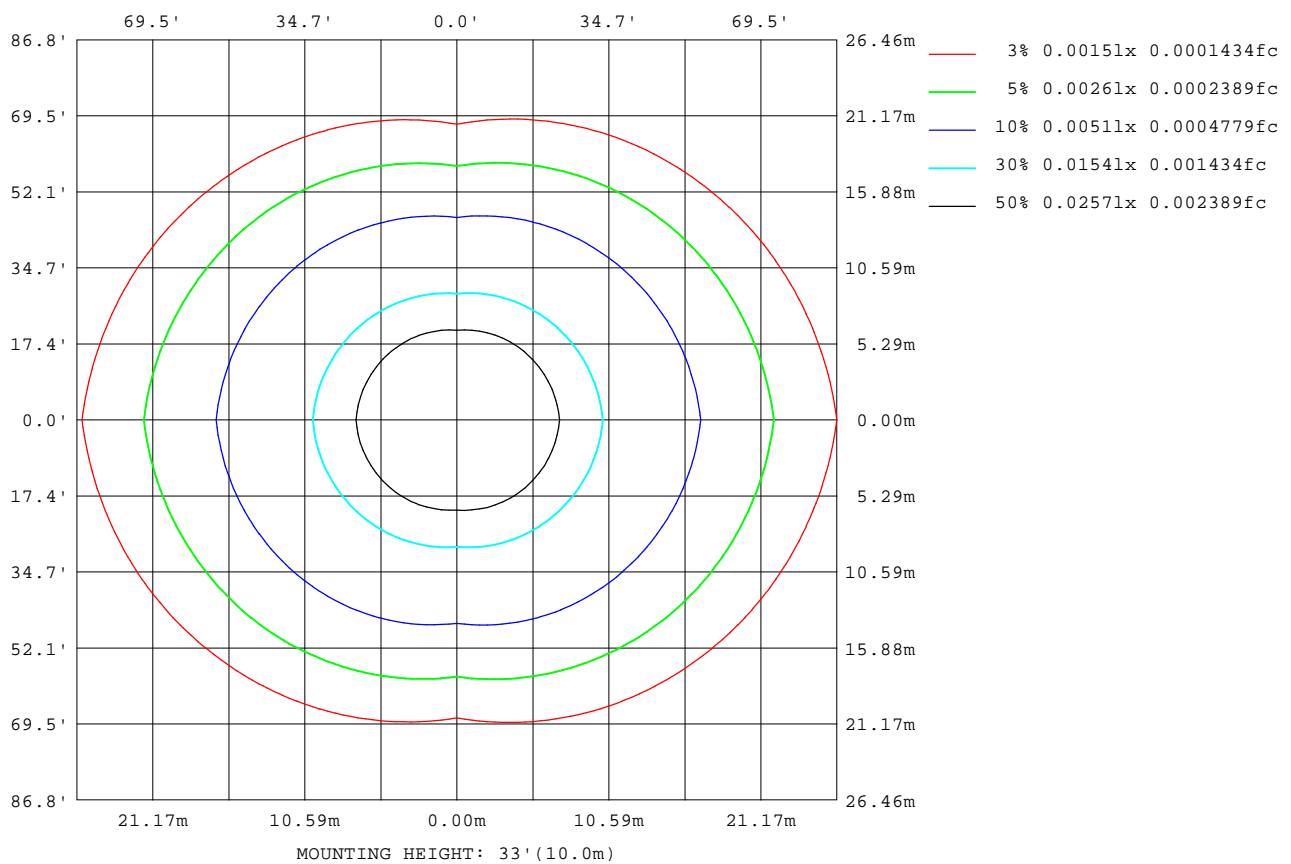
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

ISOLUX DIAGRAM

Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0RGB24CSS050CC0100-B	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

LED Avg.L Report

Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0RGB24CSS050CC0100-B	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

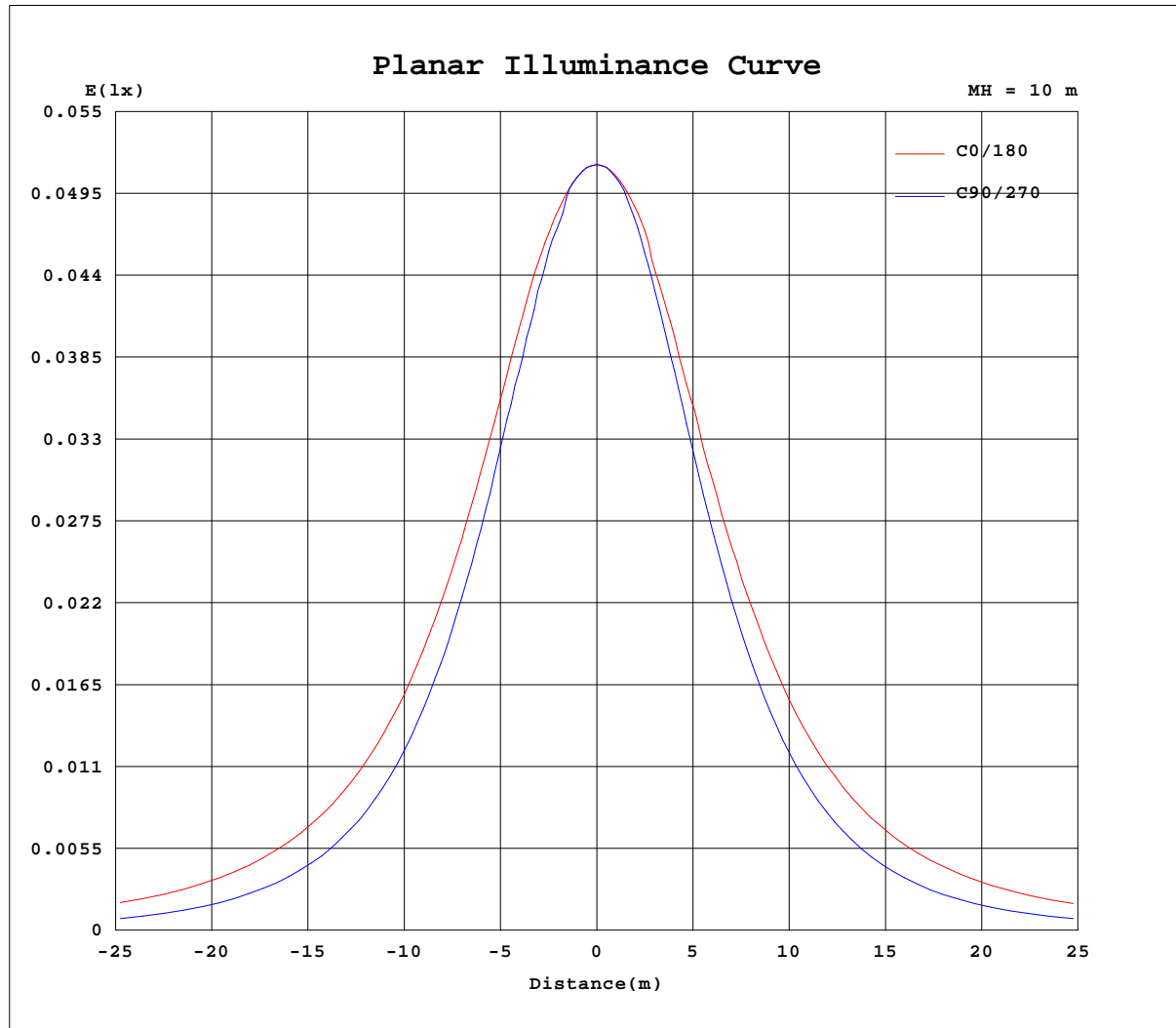
AvgL	cd/m2
L_0~180(65)av	714
L_0~180(75)av	1014
L_0~180(85)av	2588
L_90~270(65)av	354
L_90~270(75)av	303
L_90~270(85)av	225
L_45(65)av	488
L_45(75)av	569
L_45(85)av	1106

Standard: GB/T 29293-2012

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
g Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature: 25.3DEG
Operators: COLORS
Test Date: 2019-07-01

deg Range: 0 - 180DEG
Interval: 1.0DEG
Test System: EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity: 65.0%
Test Distance: 10.750m [K=1.0000]
Remarks:

LUMINOUS DISTRIBUTION INTENSITY DATA

Test:U:24.00V I:0.1710A P:4.100W PF:1.000 Freq:0Hz Lamp Flux:23.7855x1 lm		
NAME: NNS1224	TYPE:	WEIGHT:
SPEC.:NNS1224-0RGB24CSS050CC0100-B	DIM.: 1000*12*24mm	SERIAL No.:
MFR.: Colors	SUR.:1000*12	Shielding Angle:

Table--1

UNIT: cd

C(DEG) g (DEG)	0	90	180	270															
0	5.14	5.14	5.14	5.14															
5	5.14	5.14	5.14	5.14															
10	5.13	5.05	5.15	5.08															
15	5.13	4.95	5.13	4.96															
20	5.10	4.80	5.02	4.78															
25	5.02	4.61	4.93	4.57															
30	4.92	4.34	4.81	4.32															
35	4.79	4.08	4.69	4.04															
40	4.66	3.78	4.58	3.73															
45	4.49	3.42	4.38	3.38															
50	4.32	3.05	4.19	3.01															
55	4.13	2.66	4.00	2.62															
60	3.91	2.27	3.78	2.19															
65	3.68	1.82	3.56	1.77															
70	3.45	1.38	3.33	1.35															
75	3.23	0.95	3.08	0.93															
80	3.01	0.55	2.85	0.55															
85	2.78	0.21	2.63	0.26															
90	2.59	0.05	2.43	0.09															
95	2.41	0.01	2.23	0.04															
100	2.24	0.01	2.03	0.02															
105	2.06	0.02	1.89	0.02															
110	1.79	0.03	1.58	0.02															
115	1.49	0.03	1.41	0.02															
120	1.46	0.04	1.35	0.02															
125	1.31	0.04	1.22	0.02															
130	1.15	0.05	1.09	0.02															
135	0.99	0.05	0.91	0.02															
140	0.86	0.05	0.75	0.02															
145	0.72	0.06	0.59	0.02															
150	0.61	0.06	0.48	0.02															
155	0.44	0.08	0.38	0.02															
160	0.33	0.08	0.26	0.03															
165	0.24	0.08	0.08	0.04															
170	0.08	0.08	0.06	0.06															
175	0.08	0.10	0.06	0.08															
180	0.07	0.09	0.06	0.09															

C Range: 0 - 360DEG
C Interval: 90.0DEG
Test Speed: HIGH
Temperature:25.3DEG
Operators:COLORS
Test Date:2019-07-01

g Range: 0 - 180DEG
Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.750m [K=1.0000]
Remarks: